

REMARKS

Claims 1-2, 21, 23-25, 31 and 33-36 are pending in this application. By this Amendment, claims 1, 21, 23, 24, 31 and 33-34 are amended, claims 3-9, 11-20, 22, 26 and 28-30 are canceled without prejudice or disclaimer, and new claim 36 is added.

The Office Action rejects claims 1, 2, 5-6, 9, 13, 17, 21, 26, and 31 under 35 U.S.C. §102(e) by U.S. Patent 6,219,839 to Sampsell. The Office Action also rejects claims 14, 16, 20, 25, 30 and 35 under 35 U.S.C. §103(a) over Sampsell. Further, the Office Action rejects claims 7, 8, 11, 18, 23, 28, and 33 under 35 U.S.C. §103(a) over Sampsell in view of U.S. Patent 5,850,340 to York. Still further, the Office Action rejects claims 12, 15, 19, 24, 29, and 34 under 35 U.S.C. §103(a) over Sampsell in view of U.S. Patent 6,567,032 to Mullaly. The rejections are respectfully traversed.

The present specification describes an apparatus for connecting a TV and a computer. More specifically, the present specification describes an apparatus for connecting a TV and a computer which is capable of more effectively using a TV and a computer by controlling a computer at the side of a TV by connecting the TV and computer and transmitting a certain data between the computer and TV.

When a TV and a computer are separately used as shown in Fig. 1, certain interactive functions and data transmission may not be effectively performed between the TV and the computer. Accordingly, the present specification describes an apparatus/method to connect the TV and computer such as shown in Fig. 2 in order to solve problems of a separate TV and

computer. More specifically, the disclosure of the present specification allows a user of the TV to be able to control the computer by connecting the TV and computer and projecting the computer monitor display on the TV.

For example, the TV may encode a first packet signal corresponding to a mouse signal, a keyboard signal, a microphone signal and control signals generated in the TV unit and transmit it to the computer. The TV may receive a second packet signal corresponding to a computer monitor display and audio signal and control signals generated in the computer and decode it into the computer monitor display and audio signal and the control signals, and then project the computer monitor display on the screen.

Additionally, the computer may receive the first packet signal from the TV and decode it into the mouse signal, the keyboard signal, the microphone signal and the control signals, and the computer may then be controlled by the decoded signals. Furthermore, the computer may encode the second packet signal corresponding to the computer monitor display and audio signal and the control signals generated in the computer, and then transmit the second packet signal to the TV. Thus, the user may control the computer by viewing the computer monitor display through the TV screen and by using a control device (i.e., a keyboard, a mouse, and a microphone etc.) at the side of the TV.

Sampsell relates to a system 10 for providing an on-screen electronic resource guide (ERG). The PC 54 may direct its video output to the TV receiver 12.

However, the video output of the PC 54 is not a monitor display output of the PC 54, for example, an operating system display, i.e., MS Windows, or various application programs. This

differs from the specification description of controlling the computer at the TV side by displaying the projected computer monitor display on the TV screen through control devices (i.e., a keyboard, a mouse, and a microphone, etc.).

Sampsell does not teach or suggest the claimed TV coding unit for encoding control signals including at least one of a mouse signal, a keyboard signal, a microphone signal and control signals for controlling a computer, which are generated in a TV and generating a first packet signal by using the encoded control signals in combination with a computer coding unit for encoding computer signals including at least one of a video signal, an audio signal and a control signal generated in the computer and generating a second packet signal by using the encoded computer signals. For at least these reasons, Sampsell does not teach or suggest these features of independent claim 1.

Sampsell also does not teach or suggest the claimed TV decoding unit, provided in the TV, for receiving the second packet signal from the TV transmission and receiving unit, decoding the received second packet signal and recovering the decoded second packet signal into the video signal, the audio signal and the control signal of the computer in combination with a computer decoding unit for receiving the first packet signal from the computer transmission and receiving unit, decoding the received first packet signal and recovering the decoded first packet signal into the mouse signal, the keyboard signal, the microphone signal and the control signals for controlling the computer. For at least these reasons, Sampsell does not teach or suggest these features of independent claim 1.

Further, Sampsell does not disclose packetized signals. Accordingly, Sampsell does not teach or suggest the first packet signal based on encoded control signals including at least one of a mouse signal, a microphone signal and control signals for controlling a computer. Additionally, Sampsell does not teach or suggest the second packet signal based on the encoded computer signals including at least one of a video signal, an audio signal and a control signal.

For at least the reasons set forth above, Sampsell does not teach or suggest all the features of independent claim 1. York or Mullaly do not teach or suggest the missing features of independent claim 1. Accordingly, independent claim 1 defines patentable subject matter at least for these reasons.

Independent claim 21 also defines patentable subject matter for at least similar reasons. That is, independent claim 21 recites encoding a signal output from a television circuit of a television, sending the encoded signal to a personal computer, wherein the encoded signal output from the television circuit includes data for controlling a function performed by the personal computer. Independent claim 21 also recites receiving the signal sent from the television, decoding the received signal for input into a circuit of the personal computer and performing the function of the personal computer according to the decoded signal. Sampsell, York and Mullaly do not teach or suggest these features for at least the reasons set forth above. Thus, independent claim 21 defines patentable subject matter.

Independent claim 31 also defines patentable subject matter for at least similar reasons. That is, independent claim 31 recites that a first interface unit sends a first signal generated in the television to the personal computer over a communications link and the first signal controls a

function performed by the personal computer, and the second interface unit sends a second signal generated in the personal computer to the television over the communications link and the second signal includes at least one of a monitor display signal and a sound signal to be projected and to be played through the television. Sampsell, York and Mullaly do not teach or suggest these features for at least the reasons set forth above. Thus, independent claim 31 defines patentable subject matter.

Independent claim 36 also defines patentable subject matter for at least similar reasons. That is, independent claim 36 recites encoding control signals including at least one of a mouse signal, a keyboard signal, a microphone signal and control signals for controlling a computer, which are generated in a TV and generating a first packet signal by using the encoded control signals. Independent claim 36 also recites encoding computer signals including at least one of a PC monitor display signal, sound signals and control signals generated in the computer and generating a second packet signal by using the encoded computer signals. Independent claim 36 further recites decoding the received second packet signal and recovering the decoded second packet signal into the PC monitor display signal, the sound signals and the control signals of the computer. Still further, independent claim 36 recites decoding the received first packet signal and recovering the decoded first packet signal into the control signal including the mouse signal, the keyboard signal, the microphone signal and the control signals for controlling the computer. Sampsell, York and Mullaly do not teach or suggest these features for at least the reasons set forth above. Thus, independent claim 36 defines patentable subject matter.

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Each of the dependent claims depends from one of the independent claims and therefore defines patentable subject matter at least for this reason. In addition, the dependent claims recite features that further and independently distinguish over the applied references.

CONCLUSION

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance of claims 1-2, 21, 23-25, 31 and 33-36 are earnestly solicited. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
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